

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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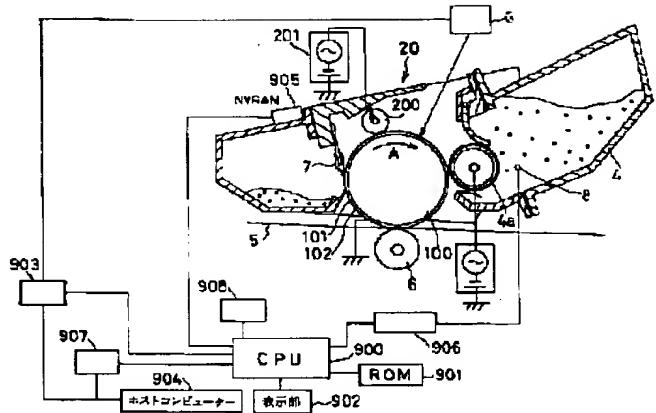
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G03G 15/08 G03G 15/08

TITLE : IMAGE FORMING DEVICE AND  
PROCESS CARTRIDGE



ABSTRACT : PROBLEM TO BE SOLVED: To provide an image forming device and a process cartridge capable of transmitting the remaining amount of developer to a user all the time and the exact period of the exhausting of the developer to the user as well.

SOLUTION: A laser beam printer is constituted in such a manner that the process cartridge 20 having a photoreceptor drum 100, a developing unit 4, etc., is detachably attached. A printer main body is provided with a sequential detecting means for detecting the consumption of toner in the developing unit 4 by a video counting system and a user display part 902 and the cartridge 20 is provided with a near end detecting means for detecting residual toner by a capacitance system by using a metallic bar 8 and an NVRAM 905 for storing the result of the detection of the sequential detecting means. The residual toner is displayed as user's need arises, based on 'the consumption of the toner' by the sequential detecting means and the value of the residual toner by the near end detecting means is compared with a reference value. When the residual toner is under about 25g, a residual amount detecting means is switched from the sequential detecting means to the near end detecting means, a warning of 'the exhausting of the toner' is displayed and further, the number of printable sheets is totaled up and displayed.

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